

To: rdubey@scblaw.com[rdubey@scblaw.com]
From: Olson, Erik
Sent: Tue 4/28/2015 5:03:11 PM
Subject: FW: Tribal Standards/RSL Table Screening Levels comparison

Richard,

Below is a quick rundown by Bob comparing Tribal and Federal standards applicable at the site. I hoped to understand them better before sending them on to you but they seem like apples and oranges to me at this point, I don't yet have a good understanding of how they relate. Hopefully Bob can explain it a bit this afternoon.

Regards,

Erik

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From: Egan, Robert
Sent: Wednesday, April 22, 2015 10:27 AM
To: Olson, Erik
Cc: Kamke, Sherry
Subject: Tribal Standards/RSL Table Screening Levels comparison

Erik,

Here is a breakdown of LDF Tribal Cleanup Standards and values from EPA's Regional Screening Levels Tables. There are two RSL tables, one uses 1E-06 for cancer risk and

a Hazard Quotient HQ=1.0, and the other uses the same cancer risk but a hazard quotient of HQ=0.1. This affects only the non-cancer risk compound/metal values. I have only included compounds and metals which might be most expected to be seen at a LUST site like Tower Standard. Cadmium is included because it has been seen in past sampling activities at the site.

I did not create a table specific to groundwater. All of the petroleum compounds in the LDF table for groundwater are equal to our MCLs for groundwater, with the exception of naphthalene and MTBE (which have no MCLs), and the Total Petroleum Hydrocarbons (TPH, which is a mixture of compounds). For TPH, the Tribe groups them all together and gives one standard. We split the TPH compounds into aliphatic and aromatic groups, and then further break down the groups into high, medium and low carbon range (for both our groundwater and soil screening levels). The gasoline BTEX compounds are found in the aromatic low carbon range. Naphthalene is found in the aromatic medium carbon range. These are the only TPH compound values I have included in the soil table below.

Please pass this on to the LDF attorney and let me know if you have any questions.

Values below are in mg/Kg. Note that the RSL tables list both residential (R) and industrial (or non-residential) (I) values.

NB: The RSL values are based on exposure to surface soil concentrations (0-3 feet in depth). The Tribal standard table does not seem to indicate whether the values apply to surface soils or all soils, even at depth.

Compound in Soil RSL HQ=0.1	LDF Cleanup Standard	RSL HQ=1.0
Benzene R 1.2 I 5.1	0.0055	R 1.2 I 5.1

Cadmium values)	R 7	8 I 98 (diet values)	R 70	I 980 (diet
1,2 Dichloroethane	R 0.46	0.0049 I 2.0	R 0.46	I 2.0
Ethylbenzene	R 5.8	2.9 I 25	R 5.8	I 25
Lead	R 400	50 I 800	R 400	I 800
Toluene	R 490	1.5 I 4700	R 4900	I 47000
Xylene	R 58	4.1 I 250	R 580	I 2500
Naphthalene	R 3.8	None I 17	R 3.8	I 17
TPH low)	R 8.2	100 (total TPH) I 42 (aromatic low)	R 82	I 420 (aromatic
med.)	R 11	I 60 (aromatic med.)	R 110	I 600 (aromatic
GRO	None	100	None	
(gasoline range)				

DRO
None

100

None

(diesel range)

Bob Egan

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